

ILLUMINATION SYSTEMS UTILIZING LIGHT EMITTING DIODES
AND LIGHT RECYCLING TO ENHANCE OUTPUT RADIANCE
ZIMMERMAN AND BEESON

FIG. 1A
(Prior Art)

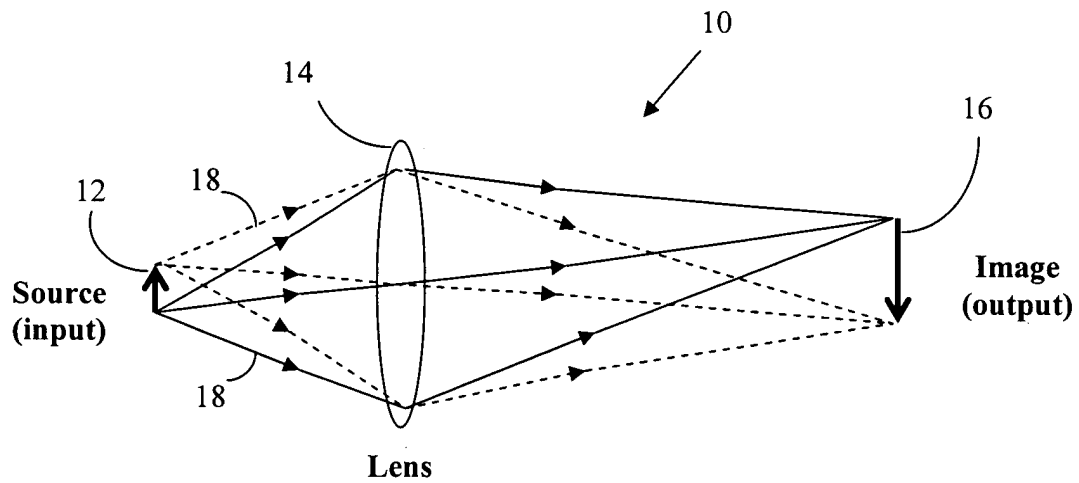
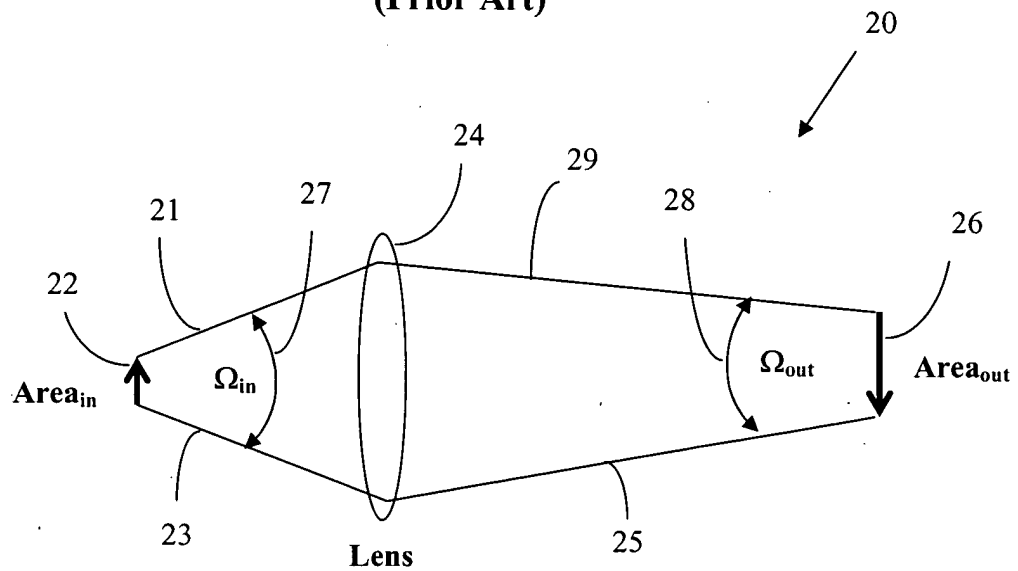


FIG. 1B
(Prior Art)



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FIG. 2A
(Prior Art)

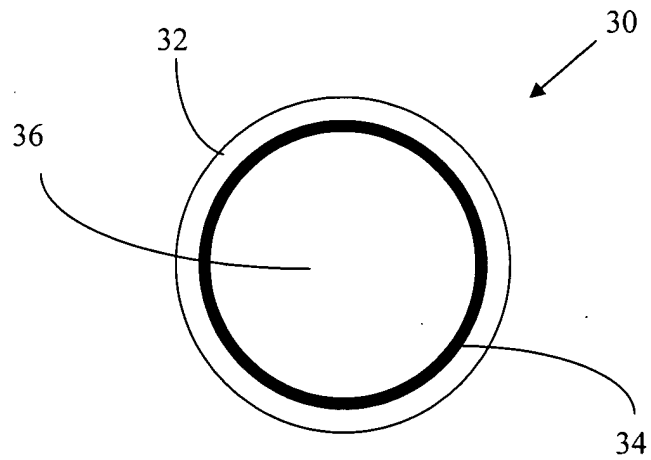
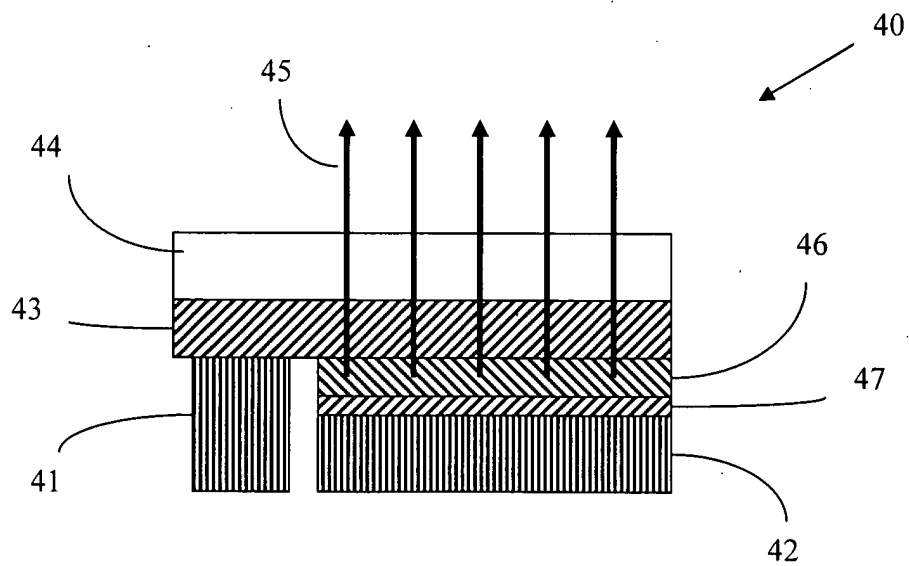


FIG. 2B
(Prior Art)



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FIG. 3A

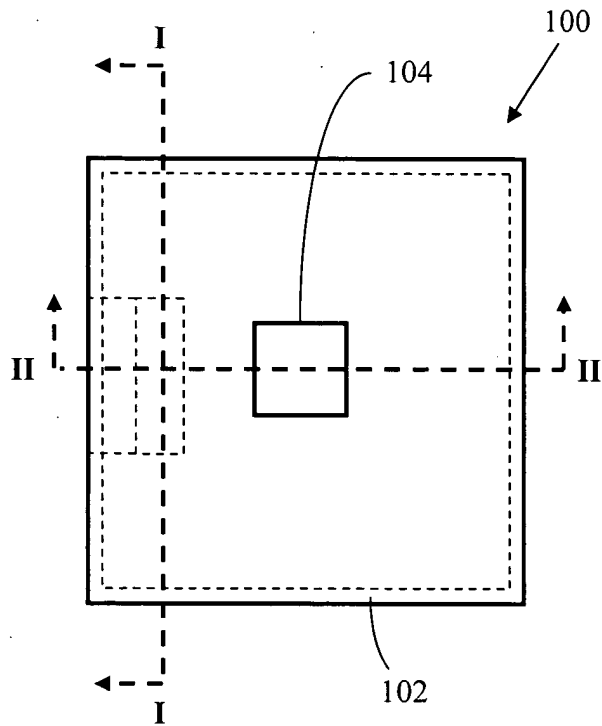


FIG. 3B

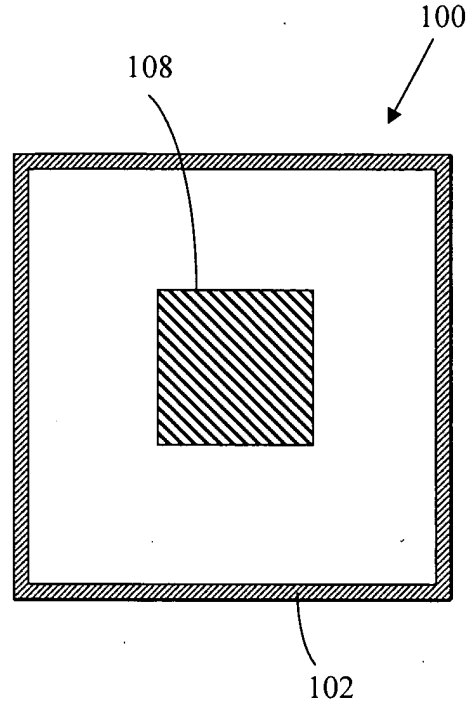
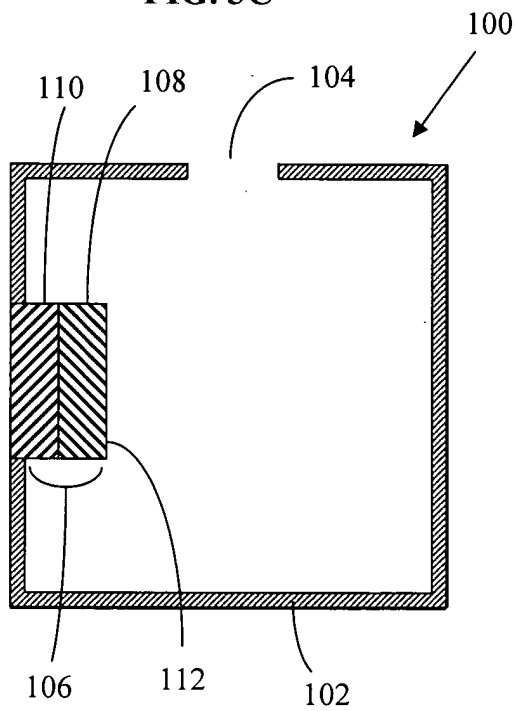


FIG. 3C



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FIG. 3D

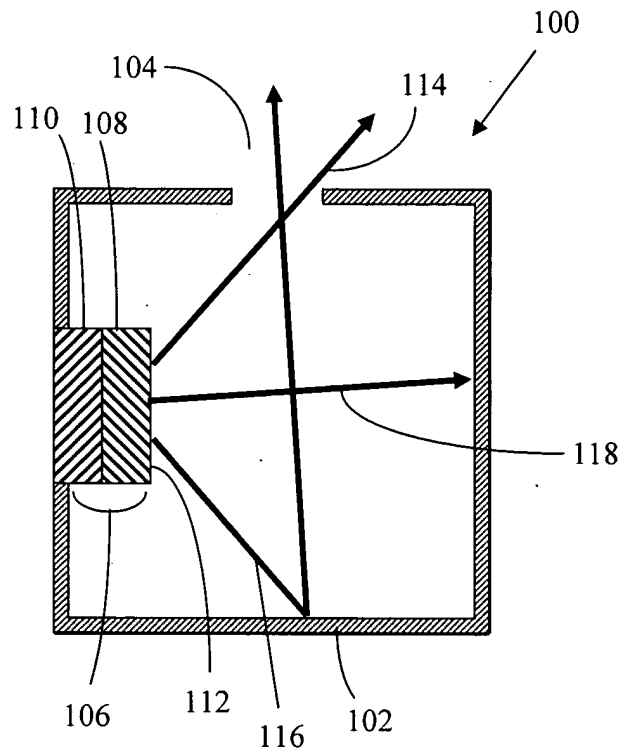
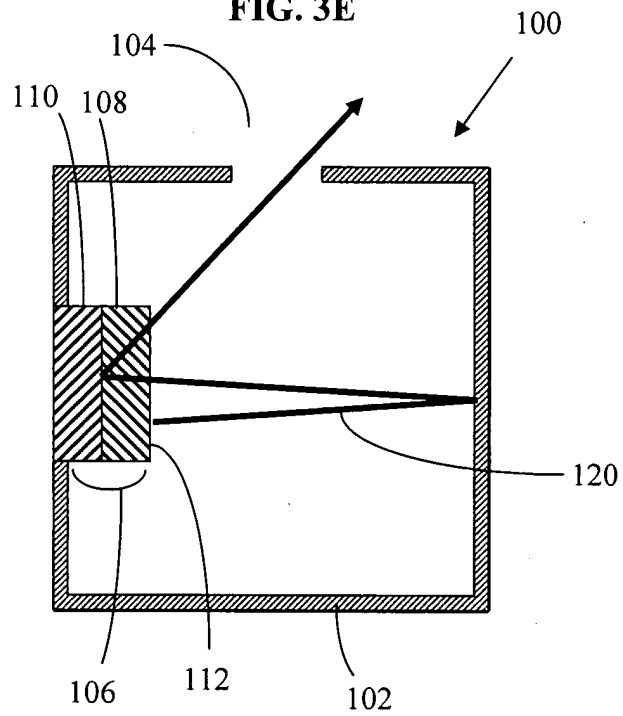
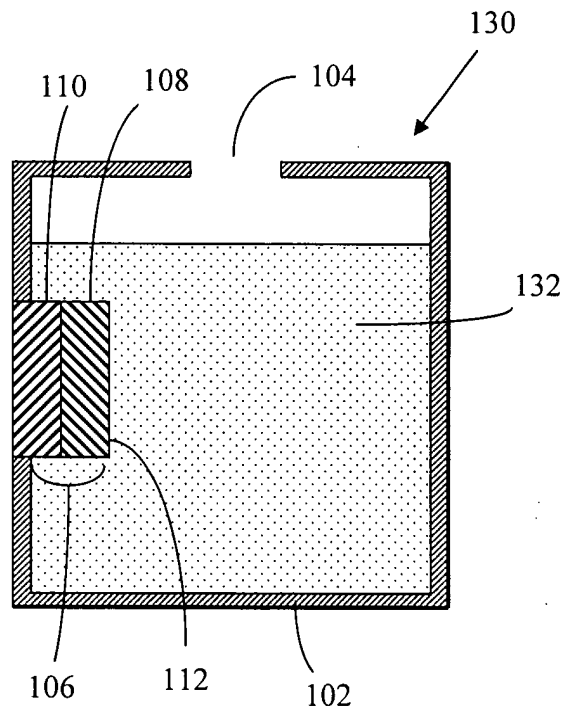


FIG. 3E



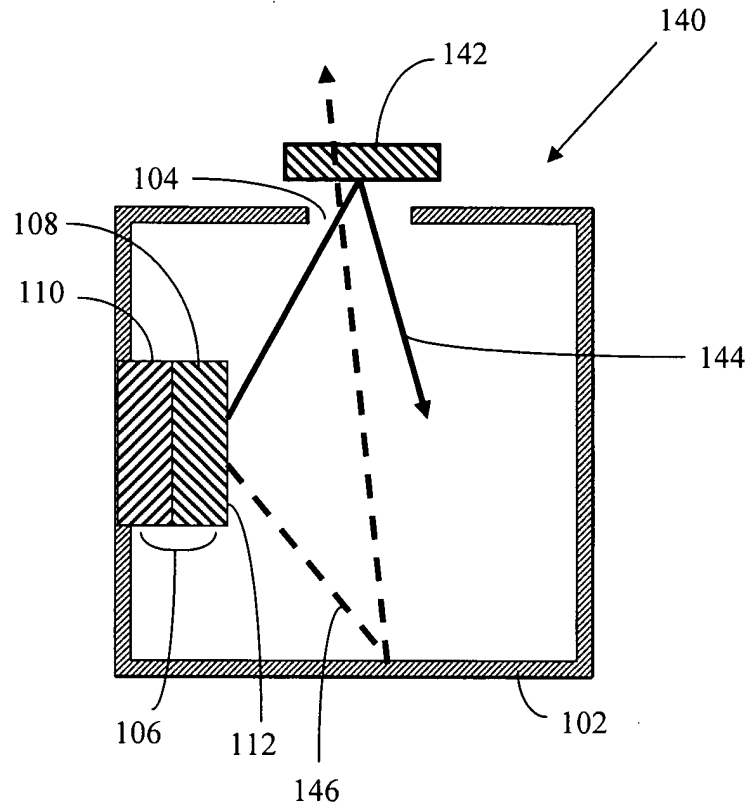
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FIG. 4



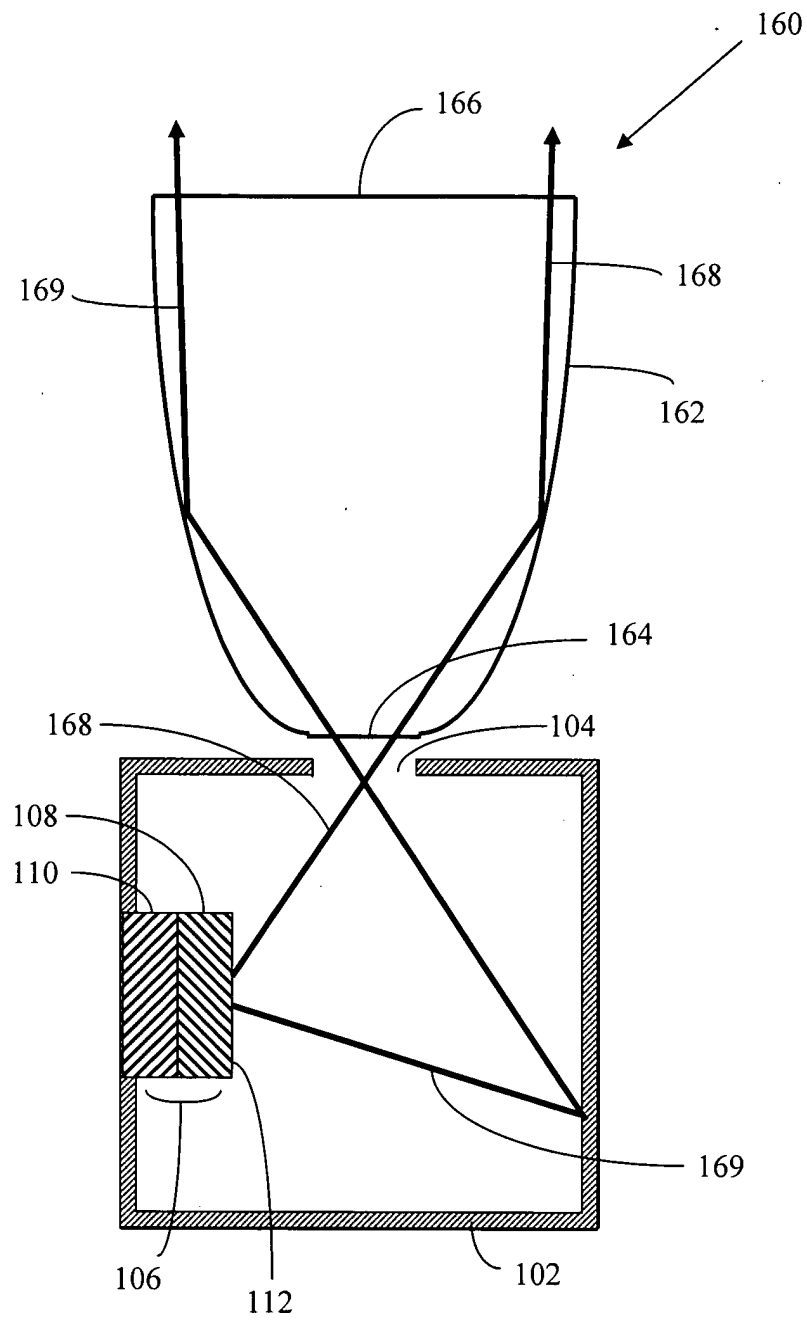
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FIG. 5



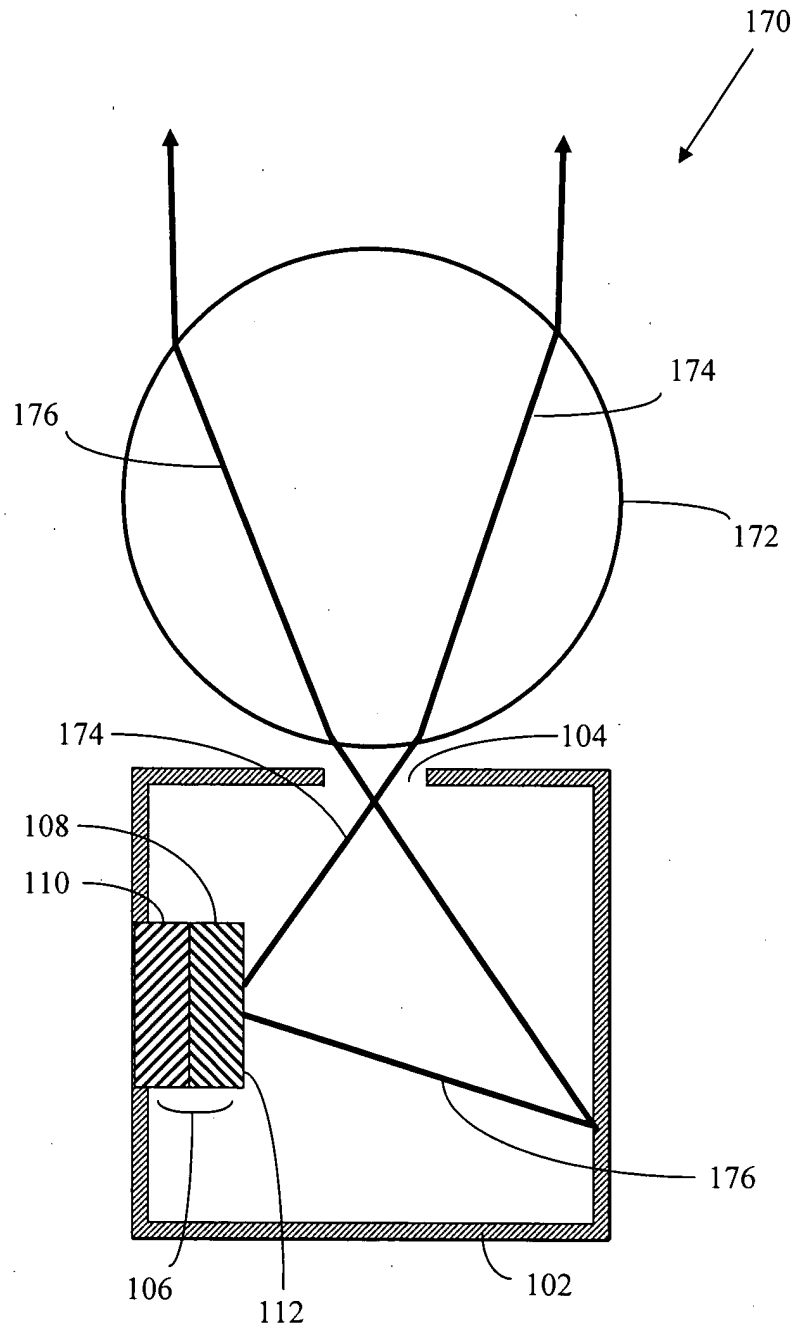
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FIG. 6A



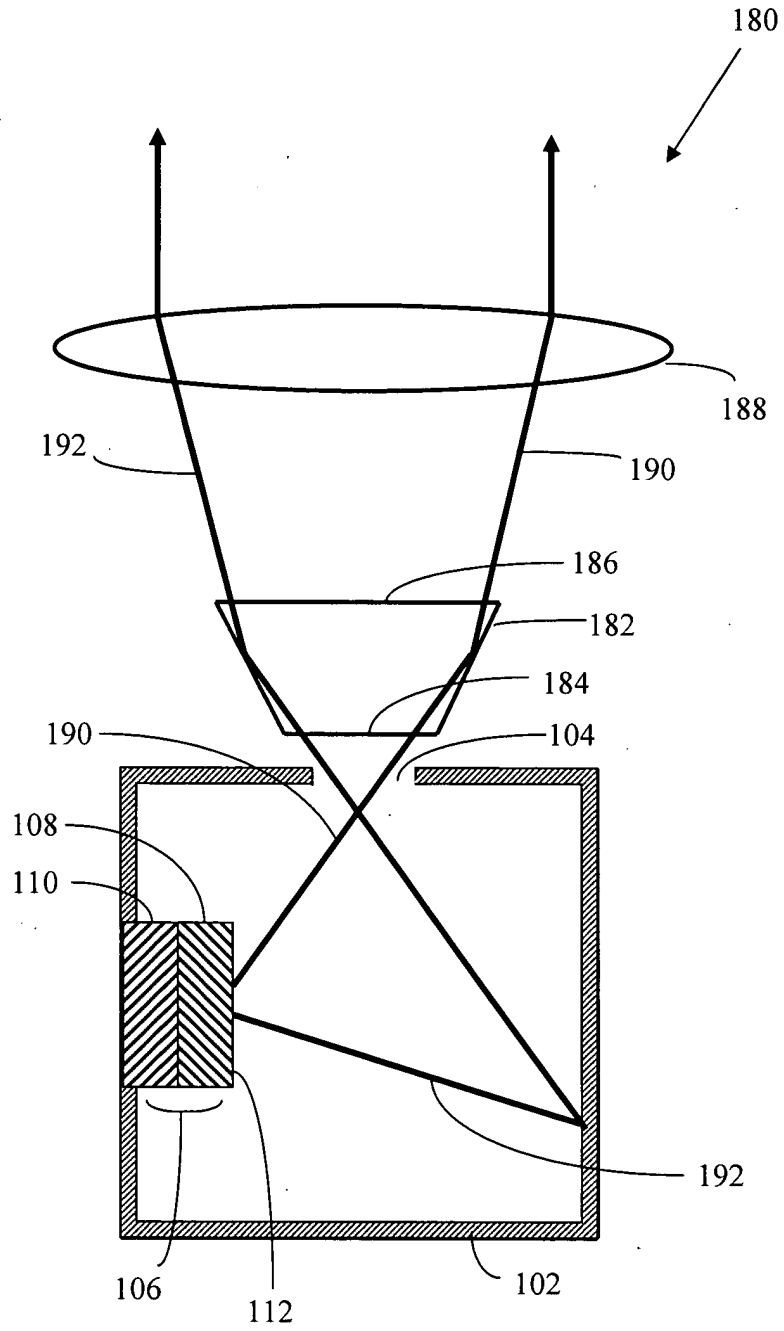
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FIG. 6B



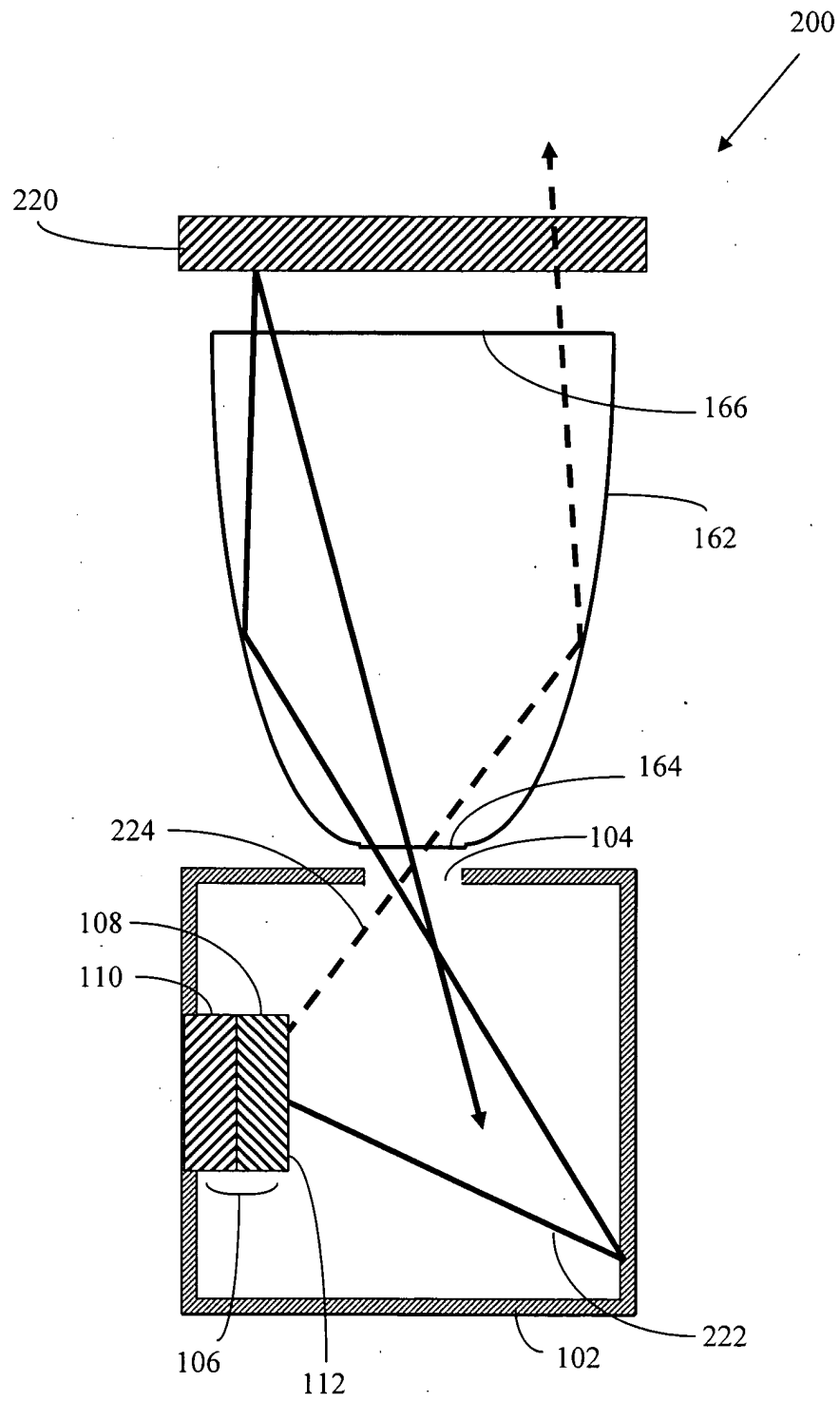
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FIG. 6C



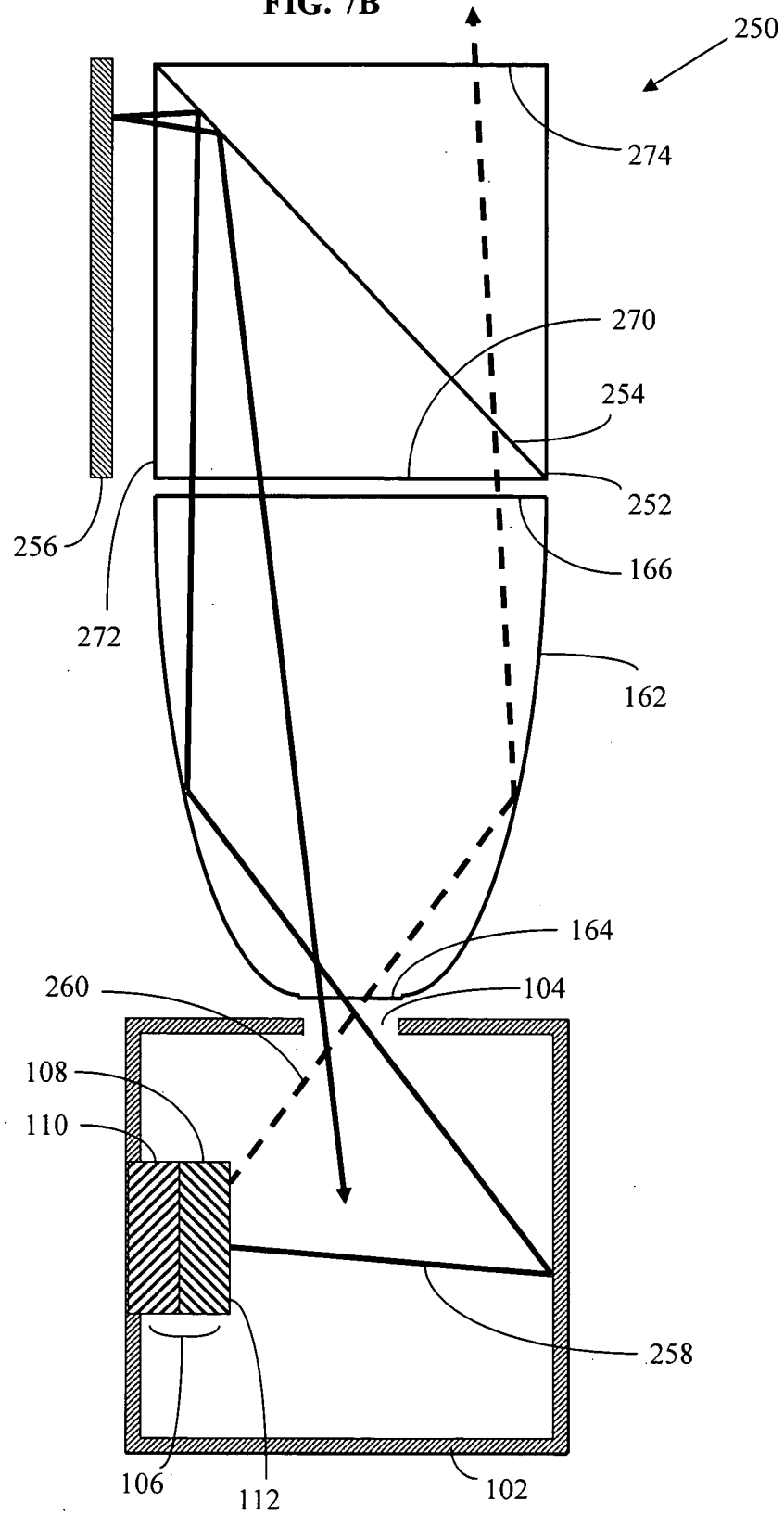
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FIG. 7A



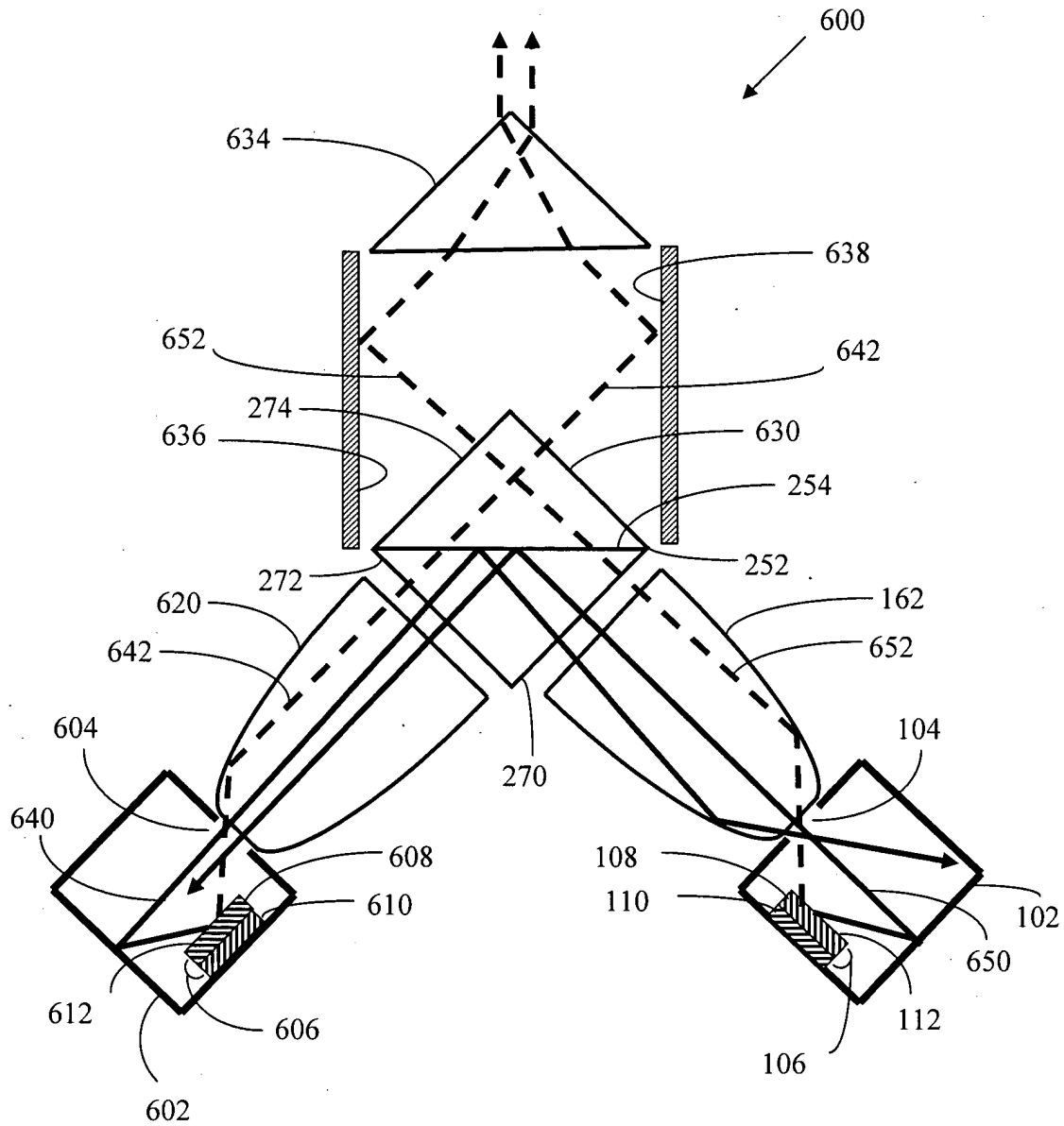
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FIG. 7B



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FIG. 8



ZIMMERMAN AND BEESON

FIG. 9A

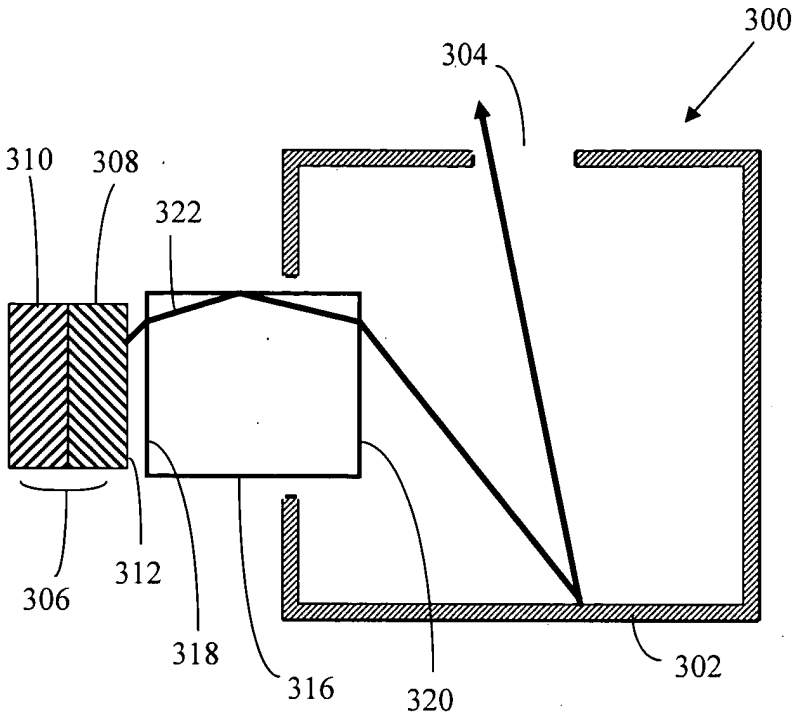
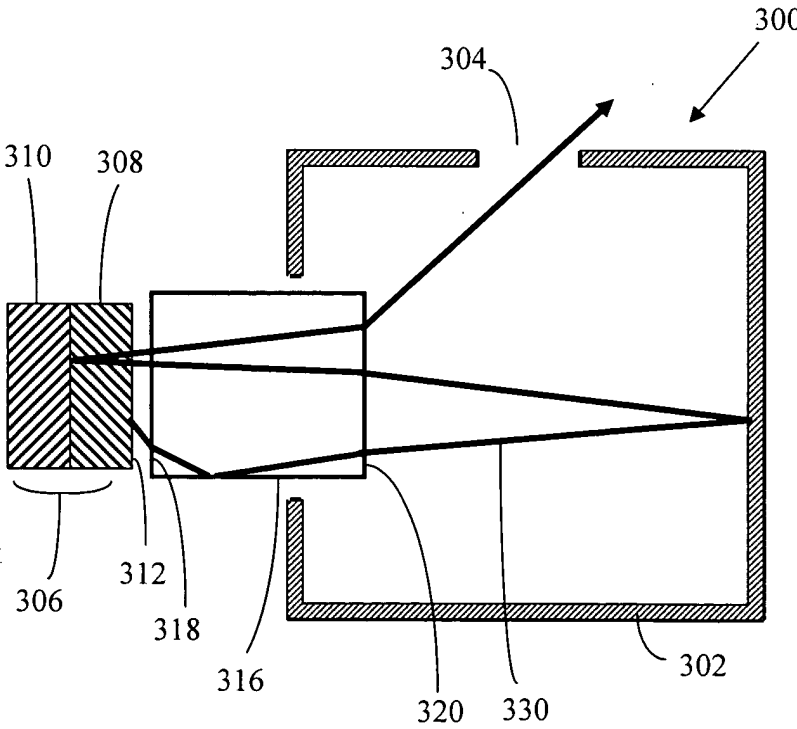


FIG. 9B



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FIG. 10A

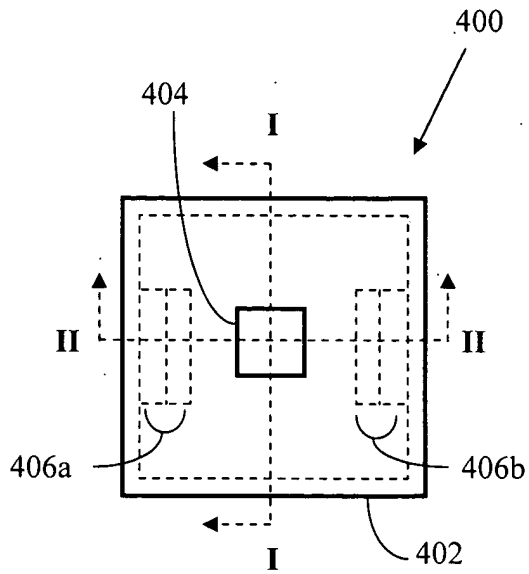


FIG. 10B

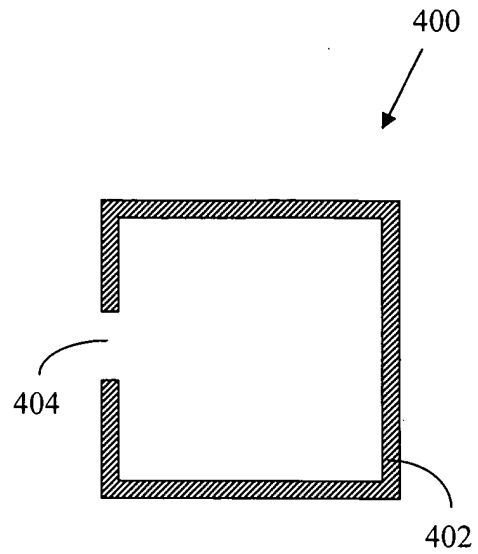
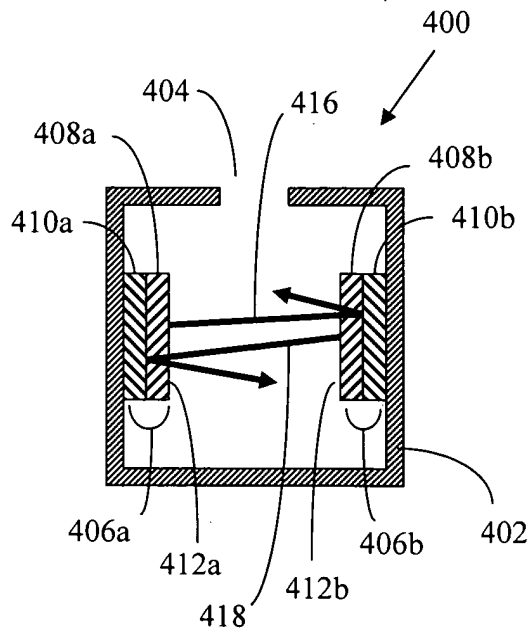


FIG. 10C



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FIG. 11A

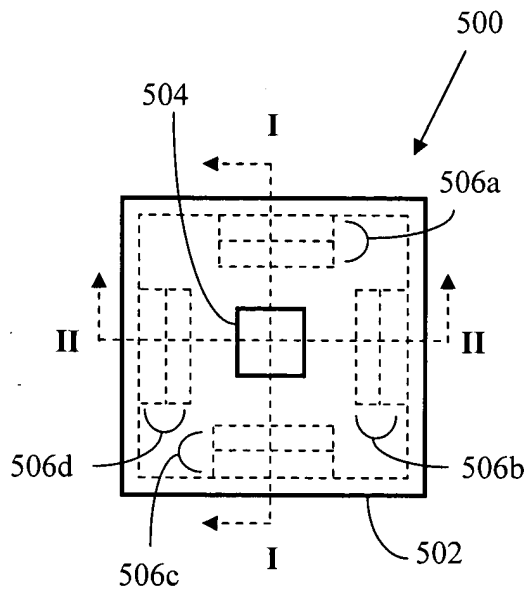


FIG. 11B

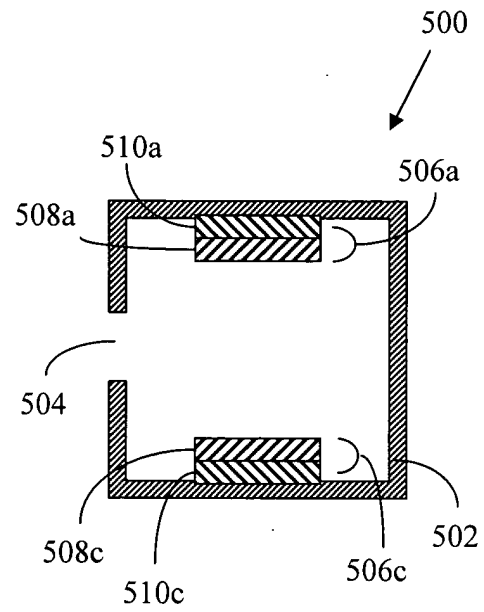
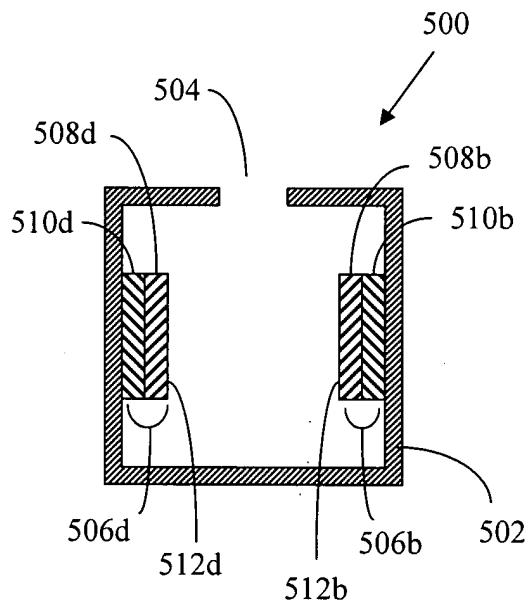


FIG. 11C



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FIG. 12A

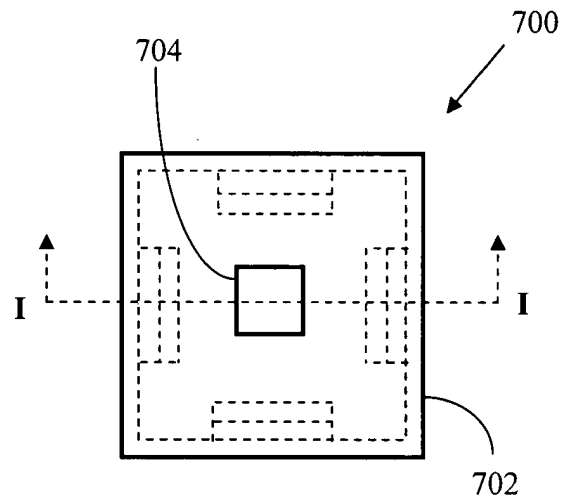


FIG. 12B

